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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/064,374	07/08/2002	Kazuo Sekiya	JP920010116US1	4009

877 7590 08/31/2004

IBM CORPORATION, T.J. WATSON RESEARCH CENTER  
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EXAMINER

NGUYEN, JIMMY H

ART UNIT	PAPER NUMBER
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2673

DATE MAILED: 08/31/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/064,374

Applicant(s)

SEKIYA ET AL.

Examiner

Jimmy H. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 08 July 2002.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 10-13 and 16 is/are allowed.
- 6) ☒ Claim(s) 1, 2, 5, 8, 9, 14, 15 and 17 is/are rejected.
- 7) ☒ Claim(s) 3, 4, 6 and 7 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

1. This Office Action is made in response to applicant's papers filed on 07/08/2002. Claims 1-17 are currently pending in the application. An action follows below:

#### *Claim Objections*

2. Claims 1-3, 5, 6, 10, 12 and 16 are objected to under 37 CFR 1.75(a) because although these claims meet the requirement 112/2d, i.e., the metes and bounds are determinable, however, the following changes should be made:

- a. claim 1, lines 6-7, "which is accelerated or decelerated" should be changed to -- to accelerate or decelerate a brightness transition for each sub-pixel in order --, because the voltage can be increased or decreased, but can't be accelerated or decelerated. Further, see claim 8 and abstract.
- b. claim 2, line 3, "to be accelerated or decelerated" should be changed to -- to accelerate or decelerate a brightness transition --, because the voltage can be increased or decreased, but can't be accelerated or decelerated. Further, see claim 8 and abstract.
- c. claim 3, line 3, "to be accelerated or decelerated" should be changed to -- to accelerate or decelerate a brightness transition for each sub-pixel--, because the voltage can be increased or decreased, but can't be accelerated or decelerated. Further, see claim 8 and abstract.
- d. claim 5, line 3, "TFT" should be changed to -- thin film transistor (TFT) --, in order to define the feature in the claim. See specification, page 7, line 6.
- e. claim 6, lines 3-4, "will be" should be changed to -- is--, in order to improve the form to conform with U.S. claim practice.

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- e. claim 10, line 3, claim 12, line 4, and claim 16, line 3, "will reach" should be changed to -- reaches--, in order to improve the form to conform with U.S. claim practice.

It is in the best interest of the patent community that applicant, in his/her normal review and/or rewriting of the claims, to take into consideration these editorial situations and make changes as necessary.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 2, 5, 8, 9, 14, 15 and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Matsueda (JP 07-121138). See the attached copy of English translation for the following rejections.

As to claims above, the claimed invention reads on Matsueda as follows: Matsueda discloses a LCD device comprising a LC cell (98) (see fig. 10), a driver (a data driver 96, fig. 10), an overdrive controller (a controller comprising elements 94, 95, 100 and 101, see fig. 10) for controlling the driver (96) to apply an overdrive voltage (an amplified signal from the signal amplifying circuit 95) exceeding a targeted pixel value (a value corresponds to the picture signal sent from the signal selection circuitry (since the picture signal sent from a selection circuit 94 is combined with the gamma correction signal from the gamma amendment table 101, see fig. 10, paragraph [0017])). Matsueda further teaches the overdrive controller (94, 95, 100 and 101) comprising elements (100, 101 and 94) including the claimed transition state comprehending

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means and select means, and the signal amplifying circuit (95) including the claimed acceleration/deceleration voltage calculating means and acceleration voltage calculating means (see fig. 10, paragraph [0017]). Matsueda further teaches that the speed of response of liquid crystal increases with an increase of the driver voltage (see paragraphs. [0003] and [0005]). In other words, Matsueda implicitly discloses the amplified voltage from the signal amplifying circuit 95, to accelerate the brightness transition for each sub-pixel (R, G, B). Further, see paragraphs [0008], [0014], [0015] and [0017]. Accordingly, the elements and the steps in the claims are read in the reference.

***Allowable Subject Matter***

5. Claims 10-13 and 16 are allowed.

6. Claims 3, 4, 6 and 7 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. The following is a statement of reasons for the indication of allowable subject matter: the claimed invention is directed to a LCD device and an associate method for driving a LCD.

Dependent claims 3 and 4 identify the uniquely distinct feature, “said overdrive controller stores predicted capacitance for each of the sub-pixels and calculates the overdrive voltage based on the predicted capacitance”. Claim 6 identifies the uniquely distinct feature, “capacitance predicting unit for predicting a capacitance value ... with the present capacitance value”, see lines 3-5.

Claim 10 identifies the uniquely distinct features, “capacitance predicting unit for predicting a capacitance value ... target brightness”, see lines 2-4, and “a transition state comprehending unit ... in said storage device”, see lines 6-8. Claim 12 identifies the uniquely distinct features,

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“predicting a capacitance value ... capacitance value”, see lines 4-9. Claim 16 identifies the uniquely distinct features, “predicting a capacitance value ... capacitance value”, see lines 3-9. The closest art, Matsueda, as discussed in the rejection above, fails to anticipate or render the above underlined limitations obvious.

***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Johnson (USPN: 6,304,254 B1) discloses a related LCD device wherein the switching can be accelerated by applying a voltage having a higher value, so as to correct for changes of ambient or liquid temperature (col. 5, line 64 through col. 6, line 3).

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jimmy H. Nguyen whose telephone number is (703) 306-5422. The examiner can normally be reached on Monday - Thursday, 8:00 a.m. - 5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala can be reached at (703) 305-4938.

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231

**or faxed to:**

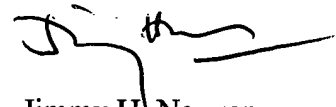
**(703) 872-9314 (for Technology Center 2600 only)**

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

JHN  
August 30, 2004



Jimmy H. Nguyen  
Examiner  
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